TOWARDS A STRATEGY FOR SUSTAINABILITY

Executive Summary

ROUND TABLE

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TOWARDS A STRATEGY FOR SUSTAINABILITY

Executive Summary

A report to the citizens of British Columbia
January, 1992

ROUND TABLE
British Columbia Round Table
on the Environment and the Economy

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Chairman's Message

The Round Table on the Environment and the Economy is in the process of guiding one of the most important initiatives for the future ever undertaken by British Columbians. It is the development of a sustainability strategy.

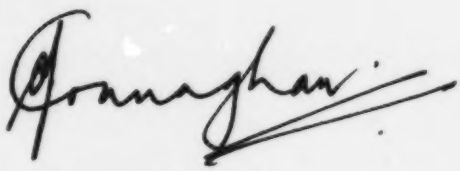
Sustainability is the key to our future quality of life. A sustainability strategy will encompass environmental, economic and social concerns. The process for its development is consensus-based, bringing together the interests, experience and ideas of people in every region and economic sector. Your ideas are valuable. Your vision of the future is important.

In *Towards a Strategy for Sustainability*, you will learn the views of British Columbians who, through their submissions and participation in public forum discussions around the province, have helped the Round Table define sustainability. This progress report on development of the strategy and its 12 initial recommendations reflect what the Round Table has learned from the people of British Columbia.

I invite you to join us in this process of creating and implementing a vision for a sustainable British Columbia that will ensure a healthy environment, economy and social system into the next century.

I invite you to share your views with the Round Table.

Yours sincerely,



C.J. Connaghan
Chairman

The Round Table Approach

Sustainable Development has become a theme of a new approach to the way we live. In British Columbia, initiatives have been brought forward by government, industry and public groups to work together to meet this challenge. The British Columbia Round Table on the Environment and the Economy is the principle focus of this effort. Created by the provincial government in 1990, the Round Table's mandate is to develop a strategy for sustainable development in British Columbia, to propose better ways of resolving conflicts over the environment and the economy, and to increase public understanding of sustainable development issues.

In its first two years of operation, the Round Table has published over 14 background papers and five theme papers, convened eight workshops and held 26 public forums across the province. This report represents a milestone in further fulfilling the Round Table's mandate. It sets out to accomplish the following tasks:

- Respond to the messages that the Round Table heard from the citizens of British Columbia through its public forums and written submissions.
- Based on these messages, articulate a vision of future sustainability in British Columbia.
- Revise the Round Table's principles for sustainability in light of public input, and indicate how the principles can be put into practice.
- Make a preliminary assessment of the current state of sustainability in British Columbia and interim conclusions and recommendations to government.
- Present a framework for a strategy for sustainability and describe the Round Table's next steps in developing that strategy.

Unlike most special committees that focus on a particular area of concern such as economic growth, health care or forestry, the Round Table has a unique mandate to provide an overview that bridges all these areas and recognizes the interdependence of environmental, economic and social values. The Round Table's ongoing task is to provide a vital synthesis of these values on a province-wide scale.

To do this, the Round Table has adopted a framework for addressing sustainability in the spheres of the environment, the economy, and the social system. This framework consists of a *vision* of a sustainable future, *principles* that represent fundamental social values respecting sustainability, and a set of *criteria*, *tools* and *decision-making reforms* for implementing the principles.

"We are at a time in our history whereby it will take desperate measures to protect what is left of Mother Nature and to ensure that she will still produce for us and continue to give all of us a living. Steps must be taken to consider how best to continue our harvests but on a true sustainable basis that will benefit us and our children."

Chief Peter D. Quan
Lheit-Lit'en Nation
Prince George
(Submission)

The vision of a sustainable future raises fundamental questions about where we stand today and what needs to be changed to attain this vision.

Framework	**VISION** acknowledges the prime importance of the environment but also recognizes the need to integrate environmental, economic and social values **PRINCIPLES** represent society's fundamental values and goals, helping to shape policy and provide a checklist to test the wisdom of our actions **APPLYING THE PRINCIPLES** *Criteria* where trade offs have to be made, the criteria help to balance values and reach agreement on compromises that are acceptable and fair *Tools* help to determine the information necessary to apply the principles to specific issues **DECISION MAKING REFORMS** improve the processes we use to make decisions and reach agreement on acceptable trade offs
Assessment	**A FIRST ASSESSMENT OF THE STATE OF SUSTAINABILITY** assesses the state of our environmental, economic and social systems, identifying trends and highlighting key issues and concerns
Initial Strategies	**ELEMENTS OF A STRATEGY** are initial action plans on key issues
Final Strategy	**A STRATEGY FOR SUSTAINABILITY**

Process for Development of a Sustainability Strategy

The term "sustainability" is used rather than sustainable development. The latter term has proved to be confusing, and has been criticized for being open to a wide range of interpretations, many of which are contradictory. It was felt, therefore, that "sustainability" provides a clearer message.

Your Issues and Concerns

Concerns covering a wide range of environmental, economic and social issues were expressed in submissions and in the public forums. Taken collectively, they emphasize the interrelationship of the environment, economy and social well-being of British Columbia, and the need for the Round Table to strive to integrate these three aspects of sustainability.

There were also many demands for changes in the way decisions are made with respect to the environment, economy and social system. Many people are frustrated with government's inability to take all of their interests into account. They are demanding more meaningful input to decisions that directly affect them or the place where they live.

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A Vision of Sustainability

If we were to look 50 years into the future, we might wish to see a society in British Columbia that is based on a set of ethics and values that recognize and limit the impact of human activity on the environment. The decisions we will make, both individually and collectively, will be based on consideration of the broader implications of our actions for the environment, the economy, and social well-being.

A sustainable British Columbia will have as its objectives: the preservation of biodiversity; the protection of pure water, clean air and uncontaminated terrestrial, wetland, coastal and sea-bottom systems; the stabilization of global climactic conditions; the protection of natural beauty that we value aesthetically and spiritually; and a commitment to a new economic ethic based on making better use of what we have.

A new style of "doing business" will have evolved to include:

- A new order of urban design that reduces the need for energy-intensive transportation, integrates green space, and enhances our sense of community.

- Forestry and agricultural practices that protect soil, water and nutrient cycles.
- Land-use planning that preserves prime agricultural and forest lands, and protects wilderness areas and wildlife habitat, while providing working capacity for development.
- A vibrant and dynamic economy, in which ingenuity is focused on qualitative — rather than quantitative, growth — and in which the full value of environmental assets and the impacts of human activities are considered.
- A new harmony with First Nations people in which aboriginal rights and self-determination have been resolved.
- Full and satisfying participation in decision-making, with local and individual empowerment.
- A social support structure that eliminates the fears of hunger, sickness, alienation and lack of opportunities for education and personal fulfillment.
- Health that is measured in degrees of wellness rather than sickness; a standard of living that is measured by quality of life rather than by level of consumption.

In summary, we will have realized our absolute dependence on planet earth and will have adopted the ethic of sustainability for our collective survival.

The Principles for Sustainability Revisited

The principles first proposed in the Round Table publication* A Better Way *have been widely supported. As the scope of issues and the need for integration have become clearer, these principles have been steadily refined to clarify their meaning and better integrate social and economic dimensions of sustainability.

The principles first proposed in the Round Table publication *A Better Way* have been widely supported. As the scope of issues and the need for integration have become clearer, these principles have been steadily refined to clarify their meaning and better integrate social and economic dimensions of sustainability. Also, in recognition of the need for better processes to make the difficult decisions that we now face, a principle has been added to address the need for transforming decision-making and governance to be more proactive and participatory. The principles are:

- Limit our impact on the living world to stay within its carrying capacity (its ability to renew itself from natural and human impacts).
- Preserve and protect the environment (conserve life support systems, biological diversity, and renewable resources).
- Hold to a minimum the depletion of non-renewable resources.

- Promote long-term economic development that increases the benefits from a given stock of resources without drawing down on our stocks of environmental assets (through diversifying and making resource use more efficient).
- Meet basic needs and aim for a fair distribution of the benefits and the costs of resource use and environmental protection.
- Provide a system of decision-making and governance that is designed to address sustainability (is more proactive, participatory, long term).
- Promote values that support sustainability (through information and education).

Applying the Principles

The principles are meant to act as guidelines to shape provincial policy and to test the wisdom of our decisions and actions. However, applying the principles in daily decision-making often involves making difficult choices and compromises. In order to balance environmental, social and economic values fairly, trade-offs between human activities and the principles will be inevitable. But as we make progress towards sustainability and adjust our lifestyles to integrate its values, the need to make trade-offs will diminish.

The Round Table proposes some preliminary *criteria* to assist in balancing values and agreeing on acceptable trade-offs .

- *The scope of environmental, economic and social costs*: avoid decisions that have widespread impacts and long-term costs.
- *Irreversibility*: avoid decisions that hold irreversible implications (e.g., permanent losses).
- *Urgency*: recognize the urgency of ongoing changes and set strategic priorities.

The Round Table has also developed a set of *tools* for determining the type of information needed to apply the principles to particular issues.

- *Indicators*: parameters to measure progress towards sustainability in the environment, economy and social well-being.
- *Limits of tolerance, levels of sustainable use*: standards to which we should strive to achieve sustainability.
- *Impacts on systems*: inventories, predictions and observations of the effects of decisions on natural, social and economic systems.

"Few would argue with the Principles of Sustainable Development you have outlined in* A Better Way. *The trick is to have them instilled into daily decisions made by government, industry and every person of this province."

Dave King
Prince George
(Submission)

- *Unknowns and uncertainties*: means of identifying and dealing with uncertainties that involve all stakeholders.
- *Full costs of a decision or action*: a compilation of the full range of values affected by a decision, again involving all stakeholders.
- *Targets of sustainability*: interim goals to meet in progressing towards sustainability.
- *Sharing of costs and benefits*: identification of who will benefit from a decision or action, who will pay the costs and who can or cannot bear those costs.

The public's perception is that the present system of governance is not capable of dealing with the wide range of issues, long time frames and fundamental values that need to be balanced if we are to make progress towards sustainability. To improve that system, the Round Table has suggested a set of *decision-making reforms* to reflect the principle of more proactive, participatory, long-term decision-making.

- Promote consensus-based, regional decision-making.
- Improve data management.
- Promote integrated strategic planning and management.
- Revise decision-making responsibilities.
- Expand the use of economic instruments and market mechanisms.
- Promote fairness and equity.
- Increase the effectiveness of education and communication.

The Round Table sees these reforms as assisting our basic system of parliamentary democracy by providing greater opportunity for affected interests to come to agreement on the fundamental issues that are at the heart of environmental, social and economic values.

"I feel very strongly that before we can have a realistic debate on the sustainability of our environment we must have some idea of what that environment consists of and what the carrying capacity of that environment is."

Kate Brauer
Campbell River
(Submission)

Assessing the State of Sustainability

Assessing the current state of the environment, economy and social system in British Columbia is no simple task. There are significant disparities in the availability of appropriate "indicators" and reliable information on these indicators. In addition, there is as yet no methodology to address the integration of environment, social and economic indicators into a comprehensive assessment of sustainability. Nonetheless, a general assessment of the state of sustainability in the environment, economy and social system in British Columbia has been made. The Round Table has made the following conclusions:

The Environment

In comparision with many other parts of the world, British Columbia's natural environment is exceptional in its diversity and richness. However, many of its most productive natural areas have deteriorated — and continue to deteriorate — as a result of human settlement. Escalating conflicts over the use of land, water, air and energy are indicators of the increasing demands on the environment by a growing population.

The Social System

British Columbians on average enjoy a very high standard of social well-being compared to many other parts of the world. However, inequities between regions and among different sectors of society still exist. As well, continued increases in population size, population age and expectations for social services are placing greater pressure on the economy and the environment.

The Economy

British Columbia's resource-dependent economy has so far provided the revenue needed to support the province's relatively high standard of living. However, the economy now faces the challenges of continued population growth, maintaining current standards of living, and meeting expectations for more sophisticated social services and even higher living standards. Without significant diversification, the economy will not be able to support those challenges.

Environment / Economy / Social System

Despite British Columbia's current prosperity, the three aspects of sustainability are on a collision course. From its assessment, the Round Table concludes that, in many cases, present patterns of human activity and trends in expectations are not sustainable.

The quality of the natural environment is a major factor in attracting people to the province, but that quality will ultimately be sacrificed if both population growth and traditional economic and social trends continue. More of our natural resources will have to be exploited to finance the demands of a growing and aging population. An ever larger percentage of our limited tax base will have to be funnelled into social services at the expense of programs aimed at managing natural resources. Social programs rarely recognize the importance of the environment to individual and community well-being. In turn, environmental strategies often fail to acknowledge the social impacts of their program objectives.

Despite British Columbia's current prosperity, the three aspects of sustainability are on a collision course.

Fortunately, we have the time, the natural and human resources, and the initiative to create and implement a vision of sustainability for British Columbia. The Round Table has made the following recommendations on the types of actions that are needed to make the transition to a sustainable society.

Fortunately, we have the time, the natural and human resources, and the initiative to create and implement a vision of sustainability for British Columbia.

Recommendations of the Round Table

1. The Round Table recommends that the "principles of sustainability" be applied in decision-making by all levels of government and by the private sector in British Columbia.

The principles presented in this document can help shape policy at the local, regional and provincial level. They can also help to define British Columbia's relationships in a national and global setting, and assist in the integration of environmental, economic and social values. The principles also serve as a checklist to test the wisdom of our actions, illuminating the broader implications of any decision and indicating when alternatives should be considered.

A preliminary set of informational tools for applying the principles and operational criteria for making the trade-offs involved in their application are also proposed for use by decision-makers. These principles, tools and criteria can be applied in a variety of settings, for example:

Provincial Level

- All reports and decision documents that go to the provincial Cabinet and to Treasury Board should include a section that addresses the sustainability of proposed actions in light of the principles.
- The Cabinet Committee on Sustainable Development should, as part of its deliberations, review existing legislation to ensure that the principles are reflected.
- All new legislation should articulate how the principles of sustainability can be dealt with and provide for their application through the use of appropriate tools.

Regional and Municipal Level

- Regional and municipal governments, their environmental committees and other advisory bodies should use the principles to verify the acceptability of decisions made by city councils and municipal departments.

Private Sector

- Several corporations have developed policies and codes of practices that reflect a commitment to sustainability. These efforts are applauded, and other corporations and businesses are encouraged to take an active role and to include the principles of sustainability in their company policies and decision-making.

Public (Non-governmental) Associations

- As groups design strategies in their areas of interest, they should check their objectives against the principles of sustainability. In hearing the presentations of individuals and organizations, the Round Table has seen that this is already occurring. The process of reflecting on and realigning objectives needs to be encouraged.

The Round Table, with public input, will continue to develop these criteria and tools, but it urges government and the public to offer advice on their refinement as they test the criteria and tools in daily decision-making.

2. The Round Table recommends that participatory and consensus-based decision-making processes be included as an integral part of the planning and management of the environment, economy and social systems in British Columbia.

Consensus-based decision-making is seen as a means of complementing parliamentary democracy when difficult choices must be made among environmental, social and economic values. To be effective, consensus-based decision-making must meet the following criteria:

- The full range of interested parties are involved early in the process, and thereby provided the opportunity to participate in defining the problems and seeking solutions, rather than simply responding to those identified by government.
- The objectives of the process, and the rules and procedures by which it will operate, are agreed to by the participants and government.
- There are agreed time limits for reaching a conclusion, and for reporting on outcomes.
- While other participants may represent particular interests, government participates to represent the broad provincial perspective and public interest by bringing policy and legal requirements to the process.
- Government is committed to respond to the outcome of the process by acting on the agreement, or providing clear reasons if it does not.

"We need a fundamental change in the process that is used to make decisions. In looking at the process it needs to be stated that any successful solutions are going to be complex."

Darryl Grams
Western Canada Wilderness Committee, Williams Lake
(Submission)

- There is clear understanding that if the process fails to reach agreement, a decision will still be made by the appropriate government authority. Assuming that a unilateral decision by government is less desirable than a collaborative solution, this provides incentive to the parties to participate whole-heartedly in the process.

The presence of a neutral third party skilled in facilitating consensus-building can be a major asset in these processes.

"A new process of regional consensus decision-making involving all major interest groups needs to be implemented — a regional round table perhaps."

Leslie Johnson
Queen Charlotte City,
(Submission)

3. The Round Table recommends that the Government of British Columbia encourage the establishment of local round tables as a means of involving the public in achieving sustainability.

Local round tables can be characterized in the following way.

- They are advisory to government.
- They are multisectoral, with a balanced representation of all major interests in a community.
- They operate by consensus, as outlined in Recommendation 2.
- They address issues of sustainability in their community or region.

These issues may range from the broad to the specific: from local involvement in province-wide land use planning to community waste management planning

The concept of local round tables is being applied in several parts of the province. These efforts need greater encouragement, as well as more explicit examination to reap the benefit of their experience. Local round tables can provide an excellent vehicle for both implementing and learning about consensus-based decision-making.

4. The Round Table recommends that the Government of British Columbia review the balance of decision-making responsibilities among provincial, regional, and local bodies and seek to enhance local and regional decision-making mandates, where appropriate.

Local and regional authorities are often in a better position to respond effectively to local concerns and responsibilities should be revised to capitalize on that position. At the same time, devolving responsibilities requires an appropriate provincial perspective. Policies must be in place and actions must be coordinated on a provincial scale to balance local and regional interests with provincial interests and to ensure progress at all levels towards the goal of sustainability.

The Round Table will evaluate present decision-making systems in the province in future strategy documents. The concepts of consensus processes and devolving authority to appropriate local levels will figure prominently in the Round Table's on going work.

5. The Round Table recommends that the Government of British Columbia establish the Sustainable Development Foundation to coordinate research and analysis on sustainability issues.

The Sustainable Development Foundation is a body that would coordinate and facilitate multidisciplinary research and development on sustainability issues. The Foundation would represent an objective, credible and an independent authority, providing unbiased information and analyses on controversial and contentious issues.

The Foundation would not only identify research priorities and solicit proposals, but would develop an agenda for research in science and technology. This would include public education, legal issues and socio-economic studies related to sustainability. On request, it would act as manager to research projects identified and funded by government or private interests so as to provide an objective source of such research. A detailed description of the mandate and structure of the Foundation has been provided to the government.

The judicious use of full-cost accounting and user-pay principles can help make progress towards sustainable use of our natural assets, but supporting policies must be introduced at the provincial level.

6. The Round Table recommends that the Government of British Columbia adopt the principles of full-cost accounting[1] and user-pay[2] in the assessment and approval of uses of land, water, air and resources. As well, market mechanisms and economic incentives should be used to the greatest possible extent to support the planning, management and administrative programs required to achieve sustainability.

The judicious use of full-cost accounting and user-pay principles can help make progress towards sustainable use of our natural assets, but supporting policies must be introduced at the provincial level. These policies should be designed to create incentives for the conservation of resources and the equitable distribution of costs and benefits.

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[1] Full-cost accounting prices ideally should incorporate all costs incurred in providing a service, including the environmental costs.

[2] User-pay services mean that the beneficiary of the services should pay the full cost of providing that service.

Full-cost accounting allows the broader costs and values of environmental protection, the draw-down of limited stocks, and necessary management and administrative requirements to be factored into the assessment of resource uses and energy projects. It is also useful in establishing priorities both in the short and long term.

Full-cost accounting, in conjunction with the principle of user-pay, should guide the setting of permit and user fees. This approach obliges users to contribute to the conservation of resources and the environment, and to support the administration of programs required to do so.

In this context, the first use of permit and user fees should be to support related environmental and resource management programs. Recognizing that the cost of administration frequently exceeds the revenue generated by the related activities, these sources of funds would be supplemented by general revenue, as required. An underlying objective of this strategy is to raise the funds needed to support environmental protection and resource management programs from the activities needing those programs rather than through general taxation.

In its Environment 2001 initiative, the Ministry of Environment identified existing as well as new market mechanisms — emissions charges, tradeable permits, user fees and deposit/refund systems — that it is studying in an attempt to reflect more accurately the economic, environmental and social values of resources.

Students today are far more aware of local and global environmental problems than their predecessors. This understanding needs to be broadened to include the economy and social systems and their relationship to the environment.

While the Round Table sees many opportunities to move forward in this regard, experience in other jurisdictions has shown that the random application of some of these mechanisms has met with mixed success. Therefore, the Round Table urges the government to act on these initiatives to "harness the power of the marketplace", but to do so with careful design in advance of implementation.

7. The Round Table recommends that educators in both formal and informal settings make every effort to integrate economic and social issues with environmental education, in order to promote a broader understanding of sustainability.

Considerable advances have been made in the provincial education system regarding ecological thinking and the need to protect and conserve the environment. Students today are far more aware of local and global environmental problems than their predecessors. This understanding needs to be broadened to include the economy and social systems and their relationship to the environment.

Such education and information programs need to be extended to a broad public audience, both in formal settings such as schools, colleges and universities, and in informal settings such as museums, aquariums, libraries, community centres and so on. The media can play a much more active role than it has to date in providing such information. The interdependence of human activities in the realms of the environment, the economy and social systems needs to be clearly demonstrated if we are to influence public attitudes and day-to-day activities.

8. The Round Table recommends that integrated land and water planning be implemented as a major component of a comprehensive land and water strategy.

A comprehensive strategy would establish a vision of desirable land and water uses, provincial goals and policies for those uses, and a framework for land and water planning on provincial, regional and local levels. The close relationship between land and water ecosystems, and the fact that activities on the land invariably affect surrounding water bodies, dictate that land and water planning be carried out together. Air would be encompassed in association with land and water planning where airshed use and air pollution are of concern.

It is important that an objective agency develop this land and water strategy for the province. As an independent advisory body to government, the Round Table is in a unique position to make this a key component of its overall sustainability strategy which is currently being developed.

The Round Table initially proposed a framework for a land and water strategy in its theme paper *Sustainable Land and Water Use*. Work in this area continues through the Round Table's Land Use Task Force, which was recently established to elaborate the elements of such a strategy, and to examine the requirements of a land and water planning process for the province. The goals of this Task Force are discussed further in Chapter 7 of *Towards a Strategy for Sustainability*.

The implementation of a provincial land and water strategy and planning process would be the responsibility of government line agencies, in association with multi-stakeholder groups that would advise on planning at regional and local levels. Consensus-based processes are important for successful implementation. In this respect, local round tables should play a major role in land and water planning.

"British Columbia needs an all-encompassing sustainable provincial land-use strategy that maintains biological diversity, water quality and quantity, fish and wildlife habitat, and provides for a range of consumptive and non-consumptive uses of land and resources."

Fletcher Challenge
Sandspit
(Submission)

9. In response to issues raised by the public and identified through this preliminary assessment, the Round Table recommends that action be taken in the following areas of environmental and natural resource management.

Protecting the province's ecosystems and landscapes should be an essential element of any provincial land and water use strategy and planning process.

Forest Resources Inventory

As recommended by the Forest Resources Commission, the system for assessing forest-related resources should be upgraded, and a comprehensive inventory of all such resources — including wildlife and fish habitat, range land, water, soils, timber, recreation and tourism potential — should be completed.

Protected Areas

Protecting the province's ecosystems and landscapes should be an essential element of any provincial land and water use strategy and planning process. Accordingly, early in the land-use planning process, the government should complete the definition and designation of protected areas. Designation should happen through consensus-based processes that involve the stakeholders in the localities where major protected areas are proposed.

Air Quality Management in the Lower Fraser Valley

In its final report *Clouds of Change*, the City of Vancouver Task Force on Atmospheric Change makes 35 recommendations aimed at arresting and ultimately reversing the trend towards increasing air pollution over Greater Vancouver. These recommendations covered targets in pollutant levels, special taxes and incentives, traffic management, transportation alternatives, land use policies, development design and public education. The Task Force also recommended that a regional air quality agency be established to monitor and manage air quality over the lower Fraser Valley airshed.

In light of these recommendations, the Round Table urges the four regional districts and the provincial government to quickly establish a cooperative, regional approach. Immediate action is needed to deal effectively with the growing air pollution problem and with the related problems of energy use, transportation and land use in the lower Fraser Valley.

In this context, the Round Table intends to examine issues related to urban planning, transportation and land use in developing a strategy for sustainable communities. This work will complement the efforts of the regional and provincial governments in establishing an air quality management authority and plan for the lower Fraser Valley.

Global Warming Strategy

A provincial strategy that sets forth immediate measures for reducing greenhouse gases is needed to address the problem of global warming. This is best dealt with in the context of a long-term approach to managing energy resources. The Round Table has proposed a "no-regrets" approach, which would give priority to actions that are economically and environmentally beneficial in their own right, and which also reduce emissions of greenhouse gases.

Beneficial actions include improving energy efficiency through conservation measures, reducing fossil fuel dependence, increasing environmentally benign energy alternatives, and accelerating reforestation. In this way, British Columbia will benefit in terms of overall sustainability, even if the dangers of global warming do not fully materialize. The Round Table will explore this option, as well as more aggressive approaches to reducing greenhouse gas emissions as one component of its sustainability strategy for energy.

Water Exports

The Ministry of Environment has commissioned an analysis of the impacts of bulk water exports. That analysis should consider ecological impacts on fish habitat and community watersheds. It should address the appropriate levies to ensure conservation and maximum economic benefits to British Columbia. The analysis must also assess the trade implications of establishing precedents and obligations that may be difficult to reverse.

Based on the public's submissions, these are some of the questions that the citizens of British Columbia wish to have answered before deciding for or against water export. Therefore, the Round Table recommends that the existing moratorium on bulk water export approvals be extended until the full analyses of the economic, environmental and social implications are completed.

Groundwater Regulation

Concerns regarding the increasing use and contamination of groundwater indicate that an inventory and regulation system is urgently needed. Legislation should be adopted to allow groundwater permitting that would be aimed at protecting the quality of the resource and providing for its fair distribution rather than at creation of rights to its use. Permits should be time-limited and subject to periodic review and revision. Permit fees should reflect the cost of administering the system, and should be used to support monitoring and regulatory

"Water, in raw form, should not be exported. If water is to be exported, value-added components must be examined to maximize the limited resource base. By encouraging bulk water exports, population development in areas where it cannot be sustained (e.g. California), is being encouraged. Such a policy will create dependency and political reliance."

Kelowna Resident
(In informal discussion session)

activities. Initially, groundwater regulation need only be applied on a limited scale, in areas of high use or where there is existing or potential contamination (e.g., the lower Fraser Valley, Gulf Islands, and parts of the Thompson and Okanagan regions).

Pollution Control Objectives

Pollution control objectives were formulated in the 1970s and 1980s to assist in setting the terms and conditions of permits to discharge wastes issued under the Waste Management Act, but these objectives are now generally considered to be outdated. In *Environment 2001, Strategic Directions for British Columbia*, the Ministry of Environment has announced its intention to review and update the objectives by 1995. The Round Table urges the Ministry to conduct this review in consultation with all stakeholders. It will be suggested in an upcoming Round Table publication *Reaching Agreement, Volume II* that this could be done through consensus-based processes.

Monitoring and Enforcement

The increase in public awareness in recent years has placed greater pressure on government to enforce regulations.

Lack of compliance with federal and provincial environmental regulations in British Columbia has traditionally been attributed to inadequate monitoring and enforcement. The increase in public awareness in recent years has placed greater pressure on government to enforce regulations.

The provincial government has responded by increasing fines and more vigorously laying charges for violations. It has also taken the innovative step of publishing statistics on charges and a list of individuals and companies that are not in compliance with their permit requirements. The length of the list indicates the ongoing need for continued monitoring and enforcement.

The Round Table urges the government to continue to review its monitoring systems and enforcement capabilities. There is a need to broaden those capabilities by creating a wider range of options for encouraging environmentally and socially sound practices. These options include greater use of administrative fines and penalties[3], financial incentives such as emission charges that are scaled to the volumes being discharged, and the ability to enter into binding agreements with individual and corporate violators to take remedial action.[4]

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[3] Recent reports by Rankin (1991) and the Institute for Research on Public Policy (1990) elaborate on the implementation and benefits of administrative penalties.

[4] Barton *et al.* (1984) discuss contractual arrangements as a means of controlling pollution.

10. The Round Table recommends that a public process be established for determining priorities for action among the range of issues that pose a threat to environmental sustainability in British Columbia.

A public priority-setting process would not only ensure that the most serious problems are identified and dealt with first, but would also provide a solid foundation for committing public funds to environmental programs. More and more government revenues are being spent in providing social services. Publicly established environmental priorities will assist in ensuring appropriate levels of funding are committed to sustaining the environment on which society depends.

The process used by the State of Washington under its Environment 2010 initiative provides an interesting example of priority setting. There, 23 major threats to environmental resources were identified and assessed for their relative risk by a team of 25 technical experts. A citizens' committee then digested the assessments and priorized the threats according to following criteria: the risk to human health and to ecological systems; the potential to cause economic damage; the trend and manageability of the threat; and personal judgement. The result was a ranking of these top 23 threats into five levels of priority action.

The Ministry of Environment has conducted a similar comparative risk assessment internally, to arrive at a list of 12 top pollution threats. However, it has not benefitted from public input in this assessment, nor has it taken the next step of priorizing these threats and identifying the specific actions needed to deal with them.

While the emphasis here is on setting priorities among environmental issues, it may also be possible to eventually establish priority setting processes across social and economic issues, and to draw the linkages necessary to set priorities that reflect the interdependency of all three aspects of sustainability.

"The economy is important to our town, the environment is important to our citizens, and it's impossible to separate the two."

J. Davidson
Mayor of Smithers
(Submission)

11. The Round Table recommends that the Government of British Columbia focus its attention on the development of a long-term strategy for a sustainable economy for the province that recognizes the need to integrate environmental and social values.

Such a strategy should provide a vision of a sustainable economy for British Columbia that capitalizes on the strengths of its economic base and recognizes the limits imposed by environmental and social values.

An integrated economic strategy must recognize the significance of the quality of our environment to the economy.

Although British Columbia's economy will always be resource-based to some extent, the use of resources must be more efficient and must yield greater benefits to the province.

On a provincial level, an economic strategy should identify and assess each of the options for continued economic vitality, recognizing that these options are not mutually exclusive. Regional strategies should build on existing resource strengths as well as provide for the systematic assessment of opportunities for economic diversification in each region of the province.

An integrated economic strategy must recognize the significance of the quality of our environment to the economy, and the need to increase training for our population as well as the need to attract skilled and knowledgeable workers and industries.

It must also focus on British Columbia's future in light of global economic trends and identify the trade links critical to its economic viability. It must identify sectors of the economy that will provide continued prosperity, and how these sectors will be able to meet the demanding standards of international competition.

The government should not develop this strategy in a vacuum, but should engage the full range of economic interests in identifying the critical elements of a sustainable economy for the province. To assist the government in this endeavour, the Round Table has recently established an Economy Core Group with the mandate to begin to articulate a vision of a sustainable economy for British Columbia along with the measures needed to achieve it.

12. The Round Table recommends that the "state of sustainability" in British Columbia be regularly assessed.

The government committed to a program of state-of-the-environment reporting in 1989, but as yet no report has been issued, nor has a program been initiated for development of a reporting system. The Round Table urges the government to carry through with this program by completing its first report in a timely fashion.

In future, such reporting should encompass social and economic as well as environmental aspects of the province. The Round Table has made a preliminary attempt at reporting on the state of sustainability in British Columbia by drawing general conclusions about the environment, the

economy, the social system, and then all three aspects of sustainability in combination. This experience leads the Round Table to suggest the following features of a "state-of-sustainability" reporting program.

Social Indicators

Attention should be paid to developing indicators of qualitative aspects of our social system. It will mean dealing with attributes that are often difficult to define or measure, but which must be addressed if we are to achieve social sustainability.

Sustainability Indicators

Reliable and consistent indicators of the sustainability of the environment, the economy and the social system need to be identified. A method for deriving indicators of overall sustainability needs to be found.

Management Status

In addition to assessing the state of British Columbia's natural assets, state-of-sustainability reporting should cover their management in terms of the status of inventories, analytical techniques, and standards and regulations and their enforcement. This information would allow the public to assess whether the actions of government, industry and the general population are appropriate and adequate.

Environmental / Resource Accounting

State-of-sustainability reporting should place emphasis on measuring the sustainability of resources by incorporating environmental information into traditional economic performance measures. Economic indicators should be revised to take into account not just the use of resources as an economic benefit, but also the depletion of the province's environmental assets caused by that use. Improvements in the resource base, such as reforestation or fish habitat improvement, should also be recorded in this broadened accounting system. Several countries have implemented measures that consider resource and environmental performance as either supplements to Gross Domestic Product (GDP) statistics, or factors that are incorporated in GDP data.

Environmental resource accounting could feed directly into state-of-sustainability reporting. In its report *Sustainable Development and Economic Instruments Part 1: Market Incentives and Resource Accounting*, the Round Table suggests that a good place to start is with a single sector such as forestry. The forest sector could be broken out of existing provincial GDP accounts, and an index of forest "health" could be developed. Combining these two indices would provide information on the status of the forestry economy and the provincial forest resource.

"Increasingly, Canadians are demanding access to better information about the environment. They seek authoritative, easy-to-use indicators to measure national, regional and local progress in achieving sustainable development."

Government of Canada
Canada's Green Plan
(1990)

While the Round Table is concerned with producing a state-of-sustainability report, it is even more concerned with developing a well-established and continuing program for reporting on the state of sustainability. A report is largely a snapshot or statement of status at any one time. A state-of-sustainability program, however, should be continuous, objective and neutral. It should be responsible not only for carrying out the reporting but also for improving the methods for identifying and measuring sustainability.

Towards a Sustainability Strategy: Next Steps

"The environment is everyone's responsibility. But that responsibility can only be met through cooperative efforts at all levels of society. No single individual, group, or government can meet Canada's environmental challenges by acting alone, just as no nation acting alone can solve the planet's problems."

Government of Canada
Canada's Green Plan (1990)

This document is one step towards articulating a vision of sustainability in British Columbia, and the measures needed to attain it. It sets out a framework for a comprehensive strategy for sustainability, and provides a preliminary assessment of the environment, the economy and the social system in British Columbia. Initial recommendations are made on policies and actions that will help British Columbia move towards sustainability.

The principles and framework form the foundation of a strategy for sustainability in British Columbia. The strategy will next address major issues of fundamental importance to the long-term sustainability of British Columbia. By addressing substantive issues, the Round Table's understanding of sustainability and the interdependence of the environment, economy and social system will improve. Through this review process, the Round Table will be able to refine the strategy's principles and framework and their application.

The Elements of the Strategy

The fundamental issues form the elements of a strategy for sustainability. These elements will be addressed in a series of sustainability strategy documents. These theme papers will culminate in a summary strategy that will provide an overview of sustainability across the breadth of issues affecting the environment, the economy and social well-being in British Columbia.

As a starting point, the Round Table is focusing its attention on three key areas as the first elements of a comprehensive sustainability strategy: energy, land and water use, and urban and community development. It has also identified other elements for future discussion, including transportation, education and the economy. For each of these elements, the Round Table will describe a vision of the future, assess the current status and problems, identify options for achieving sustainability, and

suggest the next steps that the government and citizens of British Columbia should take. These elements are not the only areas of concern. The Round Table has identified issues whose relevance to sustainability in British Columbia makes them important future topics.

Your Involvement

The Round Table's success in developing a strategy for sustainability depends on the involvement of all British Columbians. The Round Table must collaborate with government, corporations, organizations, and individuals to define sustainability and create a vision for the future. The participation of all citizens is needed to achieve a sustainable society.

Throughout the process of developing of a sustainability strategy, the Round Table will maintain an open dialogue with the public. Each of its reports will be widely circulated for review and comment and your input will be reflected in the Round Table's strategy documents and recommendations to the Provincial Cabinet.

The Round Table would like to hear your views.

The Round Table must collaborate with government, corporations, organizations and individuals to define sustainability and create a vision for the future.